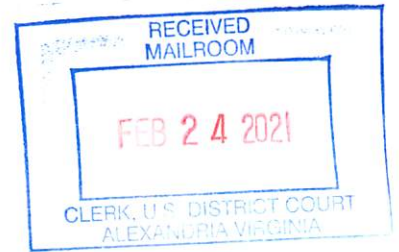


IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Alexandria Division



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Stephen Thaler, an individual

Plaintiff,

v.

Andrei IANCU, in his official capacity as
Under Secretary of Commerce for Intellectual
Property and Director of the United States
Patent and Trademark Office, and United
States Patent and Trademark Office

Defendant.

) Case No. 1:20-cv-00903

)
) Hearing Date: 3/29/2021
) Time: 10:00 a.m.

)
)
) **[AMICUS CURIAE MEMORANDUM**
) **OPPOSING MOTION FOR SUMMARY**
) **JUDGMENT]**

Dated this 23rd day of February, 2021

/s/ Mitch Apper

Mitchell Apper, *pro se*

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A. INTEREST OF AMICUS CURIAE

This *amicus curiae* represents the thoughts and opinions of a lone individual who has no interest, association or affiliation with DABUS, DABUS counsel, DABUS associates or the inventor of DABUS, Dr. Stephen Thaler. Nor does this *amicus* have any interest, association or affiliation with any of DABUS' competitors, their counsel, associates or affiliates. This *amicus* has no financial or any specific interest whatsoever in the outcome of the decision as to whether DABUS or any other invention is adjudicated to be its own inventor, or not.

This *amicus* is an engineer and inventor of a portfolio of 31 inventions that make extensive use of AI and various types of machine learning and is also a registered patent practitioner. During these past few years, this *amicus* has noticed the uncertainty and tumult arising from Alice-Mayo decisions and corresponding (35 USC) §101 jurisprudence ripple through the USPTO, courts, business, legal and technology communities. The confusion surrounding software eligibility is compounded with respect to AI because AI is usually implemented as software, but is also

generally more complex than traditional software. There are precious few equipped with sufficient detailed knowledge about both artificial intelligence and intellectual property law to make informed decisions regarding public policy where these two subject areas intersect. AI constitutes a vital part of nearly all current and future technology and commerce yet there is a lack of in-depth understanding of AI by judicial officers, clerks, and patent practitioners.

This *amicus*' sole interest in the DABUS case is in seeing the public, judiciary and legislatures of the United States as well as other jurisdictions, evaluate intellectual property law and policy related to artificial intelligence (AI) with integrity, rooted in accurate science and engineering.

B. ABSTRACT/THESIS

Neither DABUS nor any other narrow AI should be regarded as or accorded legal recognition as an inventor because narrow AIs do not conceive and conception is essential to inventorship.

C. BACKGROUND

An application for patent was submitted on 29 July, 2019 as US Application number 16/524,350. (the '350 invention/application) The relevant background is described in detail in USPTO Decision on Petition, dated April 22, 2020 in the section titled "Relevant Background".¹ In sum, plaintiff Stephen Thaler asserts that his creation, 'DABUS' is the inventor of the '350 invention, and the USPTO asserts that DABUS is not the inventor and that a natural person is required to be regarded as the inventor. Plaintiff Stephen Thaler filed a motion for Summary Judgment

¹ "USPTO Memorandum "Decision on Petition", *In re: Application No: 16/524,350*", Robert W. Bahr, Deputy Commissioner for Patent Examination Policy (8 pages), USPTO.

seeking to vacate the decision by the USPTO to deny plaintiff's request to have DABUS listed as the inventor for the application and patent, if the patent issues.²

There are two issues to be resolved by this Court: **Issue # 1** – Did DABUS itself *conceive* the invention(s) described and claimed in the '350 invention? **Issue # 2** – Does the law permit a machine to be regarded as an inventor?

On or around 22 April, 2020, Robert W. Bahr, Deputy Commissioner for Patent Examination Policy drafted and delivered an 8 page 'Decision on Petition' (DOP) to express the USPTO's position on application number 16/524,350.^{3, 4} On page 5 of the DOP, Commissioner Bahr addresses important *factual issues* that come into play with respect to inventorship:

"Conception is the touchstone of inventorship, the completion of the mental part of invention. It is the formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention, as it is hereafter to be applied in practice. Conception is complete only when the idea is so clearly defined in the inventor's mind that only ordinary skill would be necessary to reduce the invention to practice, without extensive research or experimentation [Conception] is a mental act..."⁵

² "Plaintiff's Memorandum of Law in Support of Motion of Summary Judgment", Case No. 1:20-cv-00903-LMB-TCBVAED

³ "Id

⁴ The same discussion and arguments presented in this Memorandum for the '350 patent application also apply to the 16/524,532 ('532) application.

⁵ *Burroughs Wellcome Co. v Barr Labs., Inc.*, 40 F.3d 1223, 1227-28.

Commissioner Bahr, in the DOP, further pointed out that DABUS does not have a mind, does not have thoughts, and does not conceive. The “Statement of Inventorship” (Inventorship Statement) submitted by Stephen Thaler states “the invention was conceived by a “creativity machine” named “DABUS” and it should be named as the inventor in the ‘350 application.⁶ **The question of whether or not DABUS can conceive is a matter of fact and is disputed.** A portion of this memorandum is to support the factual representations presented by Commissioner Bahr in the DOP, but some elements are also directed to matters of law.

D. NARROW AI VERSUS AGI

There term ‘AI’ can and does have a range of meanings as it is used by workers in the field, and in everyday conversation by the public, media, and by those who work in intellectual property law. Sometimes, however these two meanings become conflated, especially by persons who lack a technical understanding of AI and machine learning technology. AI can be used in two senses: (1) narrow AI or as (2) a general AI; these are two entirely different systems. It is not possible to have a meaningful and informed discussion about public policy, AI and intellectual property law without distinguishing between these two very different kinds of artificial intelligence.

In practice, any application that uses a neural network for pattern recognition is using AI. Examples of some of these applications include recommendations by Netflix, Spotify, YouTube or other media delivery services to serve up the entertainment that a consumer will most enjoy or for delivering marketing recommendations by companies like Amazon for their customers. Other

⁶ Decision On Petition, page 2, bullet point # 3.

AI applications include mail sorting that deciphers handwritten zip codes to sort and route mail, image labeling used by tech companies to label images in their databases – and many other applications that we have come to accept as part of our daily culture, commerce and lives. Still other AIs are on the cutting edge of R&D and have garnered widespread recognition such as Deep Mind’s Alpha products – Alpha Go, Alpha Zero, Alpha Star, Alpha Fold and Alpha Mu; Open AI’s GPT-3, Open AI Five, and autonomous driving systems by Tesla, Waymo or MobileEye. The technology engine behind all of these generally includes some sort of machine learning multi-layered neural network. These technologies are used in pattern recognition, particularly activities which human beings employ all the time but whose algorithms can’t be explicitly articulated. **All of today’s AIs are narrow AIs because they do not possess the qualities of a general intelligence.** *Some of the characteristics of narrow AIs are:*

- a) They are capable of performing one or a few pattern recognition tasks, often as well as, or better than a natural person, sometimes even a highly skilled natural person,
- b) They are usually limited to one or a few domains,
- c) They implement learning,
- d) As of February, 2021, there are many, many implementations, worldwide.

All current AIs right now, are designed by natural persons and their performance is a result of the programming that is architected into them by an engineer. At some point in time (in the future) , if they are able to operate without a natural person as designer, that might hint at artificial intelligence sufficient to characterize the AIs as inventive.

In contrast to narrow AIs, there is a type of AI characterized as artificial general intelligence or AGI. There is no AGI right now and there has never been any AGI. An AGI is an AI that can perform like a human being in a general manner across a variety of domains. An AGI is often understood to be able to understand spoken language and process the language by understanding the meaning and intent of the language and then generate an appropriate response to the language on a broad variety of topics in a free flowing conversation. A true AGI would be able to recognize individual people and recognize those people in different situations, as younger versions of older persons, as older persons of younger persons, sick from healthy, healthy from sick, in different costumes, with different hair styles, in passive and active settings, alone or in groups, and so forth. A true AGI would not only be able to learn from data, but to apply logical reasoning to that same learning, something that today's computers cannot achieve. In short, an AGI is the kind of computer portrayed in the movie '*2001 A Space Odyssey*' depicted as HAL, in the movie "Her", or as depicted in the Star Trek '*Next Generation*' series as Lieutenant Commander Data, in which humans interact with machines and operating systems that are conscious, sentient, driven and self-aware. The AI that Alan Turing imagined in his classic work was an AGI because a narrow AI would not be capable of convincing a human being that it - the AI - was also a human being.^{7,8}

⁷ "Inventing AI: Tracing the diffusion of artificial intelligence with US patents", **US Patent and Trademark Office, Office of Chief Economist**, IP Data Highlights, Number 5, October, 2000, (¶ 1).

⁸ "Computing Machinery and Intelligence", Alan Turing, **Mind**, Volume LIX, Issue 236, October, 1950, pp 433-460.

When scientists and engineers refer to the ‘singularity’, they are envisioning an AGI that is capable of accessing and processing all knowledge more quickly and expansively than any single or group of natural persons. The AGI would be endowed with awesome powers that far exceed any single or group of humans and this is what drives the public debate about AI. Whether this singularity comes in 20, 50 or 80 years, it will change mankind’s very existence as much or more than the discovery of fire, the printing press or any other technology.

An AGI would be able to perform many of the same intelligences as a natural person and might even be able to conceive and invent. Such an AGI might be able to recognize business problems, the technical problems underlying those business problems and imagine new technological solutions to those technical problems. But such an AGI with these types of performance characteristics does not now exist. We can’t even imagine an architecture for such an AGI and as of right now, it’s just science fiction. If and when an AGI is developed, it will come about by combining and improving today’s narrow AIs as building blocks. *Some of the characteristics of an AGI are:*

- a) It is the Holy Grail of artificial intelligence and probably incorporates and integrates many tribes of AI such as learning using the connectionist model, logical/symbolic representations, one shot/few shot, transfer learning, blending of supervised, unsupervised, reinforcement learning, and advanced search.
- b) Exhibits intelligence across many domains,
- c) An AGI can perform at or close to the full range of many kinds of human intelligence (see: *infra* in the heading ‘*Pre-requisite Markers of Intelligence Essential for Conception*’. An AGI can perform many types of intelligent tasks.

- d) As of February, 2021, there exist no implementations of an AGI. One prediction is that AGI will begin to emerge as soon as 2030-2050, but no one really knows. Many technical obstacles must be overcome before anything resembling an AGI is implemented.

E. INVENTORSHIP & CONCEPTION

The process of invention consists of two separate sub-processes, (1) conception and (2) reduction to practice. Neither case law nor MPEP §2138.04 explicitly require that conception be performed by a natural person. This suggests that an artificial intelligence might not necessarily be excluded from regard as the conceiver of an invention. However, there is language in both the case law and the MPEP that insinuate prerequisite thresholds of conception from which certain types of AI are necessarily disqualified.

1) NARROW AIs DO NOT HAVE MINDS AND THUS DO NOT CONCEIVE

Townsend v. Smith teaches that “the complete performance of the mental part of the inventive act” is conception and “the formation in the mind of the inventor of a definite and permanent idea of the complete operative invention as it is thereafter to be applied in practice” constitutes ‘conception’.⁹ These words communicate that the conceiver of the invention must possess a mind. MPEP §2138.04 I reads “conception must be done in the mind of the inventor”. There is no showing in the specification of any narrow AI that it possesses anything remotely resembling a mind, nor is there is a definition of ‘mind’ that resembles that which is described in any narrow AI. Narrow AIs do not possess minds and perform as they do only because a human engineer

⁹ *Townsend v. Smith*, 36 F.2d 292,295, 4 USPQ 269, 271 (CCPA 1929)

designed the structure, trained and tuned the AI. The AI didn't formulate its own design function, structure, or training data – these are conferred into and onto the AI by a natural person.

2) *NARROW AIs DO NOT FORM IDEAS AND THUS DO NOT CONCEIVE*

Bosies v. Benedict teaches that “the inventor must form a definite and permanent idea of the complete and operable invention to establish conception¹⁰. *Hybritech Inc. v. Monoclonal Antibodies Inc.* teaches that “(Conception is the “formation in the mind of the inventor, of a definite and permanent idea of the complete and operative invention,¹¹ as it is hereafter to be applied in practice.”), and *Townsend v. Smith* ruled that a conceiver of the invention must generate the idea of the invention.¹² It may be that narrow AIs can be said to perform sometimes amazing computational feats, but they do not model or represent definite and permanent ideas. Narrow AIs such as DABUS do not understand anything that they are doing within the broad meaning of ‘understanding’ and neither their functionality nor their structure, model or represent thoughts or ideas. Though they sometimes mimic human level performance in specific tasks or domains, narrow AIs don't implement anything like thoughts or ideas because their computational performance is an implementation of complex functions whose parameters have been set using clever training techniques such as gradient descent, backpropagation and the use of objective (cost) functions. The execution of these functions, in inference, is not thinking or cognition but rather the execution of a computer circuit that has been defined by a human inventor.

¹⁰ *Bosies v. Benedict*, 27 F.3d539, 543, 30 USPQ2d 1862, 1865 (Fed. Cir. 1994)

¹¹ *Hybritech Inc. v. Monoclonal Antibodies Inc.*, 802 F. 2d 1367, 1376,231 USPQ 81, 87 (Fed. Cir. 1986)

¹² *Townsend v. Smith*, 36 F.2d 292,295, 4 USPQ 269, 271 (CCPA 1929)

3) *NARROW AIs ARE NOT THEMSELVES IN POSSESSION OF ANY INVENTIVE CONCEPT AT THE TIME OF THE INVENTION, AND THUS DO NOT CONCEIVE*

Gunterv. Stream teaches that “It is settled that in establishing conception a party must show possession of every feature recited in the count, and that every limitation of the count must have been known to the inventor at the time of the alleged conception.”^{13, 14} Conception must be proved by corroborating evidence.” If an AI is to be regarded as an inventor, that means that the AI itself must prove by corroborating evidence that it was in possession of every feature in the count (claim) and known to itself at the time of the invention.

In determining whether an AI is capable of conception, conflation of two distinct cases must be avoided:

Case # 1 is where a natural person conceives, invents, designs, architects, codes, trains and tunes a narrow AI system where the narrow AI system can perform some useful work. In this case, the natural person who invents the narrow AI is the motive force of the invention and rightful conceiver. This natural person-inventor has a mind, has thoughts and ideas, and can make a showing that they were in possession of the inventive features at the time of conception. In this case, there is a computer implemented invention that performs exactly as it was programmed to behave, but the invention itself does not have a mind or ideas and can’t explain why it did anything.

¹³ *Gunterv. Stream*, 573 F.2d 77, 197 USPQ 482 (CCPA 1978).

¹⁴ see also *Coleman v. Dines*, 754 F.2d 353, 224 USPQ 857 (Fed. Cir. 1985)

Case # 2. If an AI does certain useful work and that same AI is said to be the inventor of the work, this means that the AI *itself* creates the algorithms that it uses to do the computational work. In the case of an AGI, the *AGI itself* actually conceives of the function, devises structure such as neural networks and their logic independently and *without input from a human knowledge worker*. In this case, the neither the structure nor training from a natural person is used for a specific solution architecture to a specific problem. Such a technology may emerge one day, but that is not the case of today's narrow AIs.

F. PRE-REQUISITE MARKERS OF INTELLIGENCE ESSENTIAL FOR CONCEPTION

There are certain characteristic cognitive abilities that confer and enable natural persons to conceive. It remains to be seen whether these elements of intelligence can also be conferred into or onto an artificial intelligence. This following list may not be comprehensive as to identifying every intelligence or aspect of intelligence, but it is hoped that its contents illustrate the point that the ability to conceive is rooted in certain cognitive abilities, without which conception could not occur.

1. An intelligent person possesses *agency; independent motive intellectual energy*. An intelligent person has *personal cognitive initiative*. This capability is a necessary requirement for conception. Without this motive force, a natural person cannot focus his or her mind on solving a problem. In the case where an AI is able to attend to certain problems, as for example using attention as in transformer models, those architectures are specifically set up and designed by an engineer or natural person. Attention, transformers and similar

methods and structures are examples of a narrow AIs where the actual conceptive energy is not the computer program, but the engineer who designed the program.

Questions sometimes arise as to whether and how a computer can possess this independent motive energy border or whether it is even possible to build a computer with consciousness. Can an AI which delineates between the computer and the non-computer be developed at all? Can an AI be imbued with a sense of ‘I’ – an artificial ego? These types of questions are worthy of discussion, but the present point is the simple observation that one of the prerequisites for conception is the ability of the inventor to independently focus one’s attention in any direction that one chooses.

2. An intelligent person independently possesses a kind of restlessness or dissatisfaction with the status quo which motivates their desire to improve some method or invent a new apparatus. Indeed, one of the Supreme Court’s definitions of ‘invention’ eligible for the award of patent protection is ‘improvement in technology’^{15, 16, 17}. This restlessness comes from human emotions such as curiosity and ambition, qualities that are not normally associated with computers, at least not computers in today’s state-of-the-art. These emotions motivate an inventor to recognize a problem – usually a technical or technological problem and to devise a technical /technological solution for that problem.

¹⁵ 35 USC §101

¹⁶ Alice Corp. v. CLS Bank International, 573 U.S. 208 (2014)

¹⁷ Enfish, LLC v. Microsoft Corp., 822 F.3d 1327 (Fed. Cir. 2016)

3. A natural person possesses a great deal of knowledge about the world. One type of knowledge that is part and parcel for basic human intelligence is the accumulation of commonsense understanding of many phenomenon and how these interoperate in a unified world view. For example, basic intelligence for most humans includes the ability to understand spoken language, the ability to express one's thoughts verbally, to process 2D images, to reason spatially, to seamlessly transform a 2D scene into its 3D equivalent in the mind's eye and vice versa, some degree of perception of time – past, present and future as well as some degree of understanding of physical as opposed to non-physical existence. Natural persons possess the ability to generalize rules and to understand exceptions to the very rules that they create, possess an imaginative faculty, and to plan.

Humans possess inductive and deductive reasoning, are capable of combining different kinds of intelligence, can learn and apply logic seamlessly. The AI technology that has achieved the most attention for learning is part of the connectionist school of machine and deep learning. However, the symbolic school of AI represents knowledge using symbols and manipulates those symbols using logic. Natural persons can both learn and apply logic. These are only some of the characteristics of intelligence; there are others.

4. Another type of knowledge that is essential to an inventor's basic knowledge, and which is above and beyond that of baseline intelligence is a know-how of the sciences, engineering and technologies that relate to one or more particular arts. An inventor would not only be in possession of commonsense knowledge, but also have a working knowledge of mechanics, physics, biology, botany, software engineering, etc... This knowledge includes a

combination of theoretical textbook knowledge as well as applied understanding of how this theory operates in the practical world.

5. Still another type of knowledge that is essential for conception is a broad awareness of prior art. This is needed at least so that an inventor does not re-invent inventions that already exist, but also because much conception consists in creating new combinations of elements that already exist. The awareness of prior art is not the type of knowledge that comes from accessing data in a database. Nor is it the kind of clever text analysis used by Watson when it won the world Jeopardy championship. Watson won at Jeopardy not because it understood the topics and articles in its Wikipedia database, but through clever searching. An AI that conceives new inventions must incorporate sufficient intelligence that it can discern the relative value of each inventive concept (and claim) in the patent with respect to the prior art. This capability must include the ability to digest and understand the meaning of the content of publications in patent and non-patent literature.

6. Conception requires that an inventor synthesize all of these different kinds of knowledge so that he or she holds together in his or her mind a) commonsense knowledge about the world, b) basic and practical science and engineering knowledge and c) knowledge of prior art, and

7. A natural person-inventor employs his or her *independent motive intellectual energy* together with his or her *restlessness or dissatisfaction* with the world, motivated by his or her *curiosity and ambition*, to independently arrive at one or more practical applications that are useful, avoid the prior art, and are non-obvious by providing a technological solution to a

technological problem. One element of conception is the independent enablement and written description of a new functionality, functions and methods, another element of conception is to define the structure(s) that implement the methods, and still another element of conception is to articulate how the functionality maps to the structure.

8. The act of invention is of a *higher calibre than that possessed by an artisan having ordinary skill in the art*. For an AI to be rightly considered an inventor, the new results of the conception must exhibit a level of creativity that generates a result that is unexpected or unanticipated, the litmus test used to define whether an invention passes muster with respect to the non-obviousness criterion of 35 USC §103 ('inventive step' in some jurisdictions).
9. At some point in the inventive process, the conceiver must be able to explain his or her (or its) reasoning process at least sufficient for reduction to practice. In one instance, the reasoning process must be used to convey to a patent practitioner enough about the invention so that the practitioner can draft and prosecute an application. In another instance, the inventor must be able to present sufficient details to fulfill the enablement and written description requirements of 35 USC §112. Conception, by itself is only the first part of invention.

G. NO AI POSSESSES THE MARKERS NECESSARY FOR CONCEPTION

No AI possesses agency in the sense that the AI is capable of *focusing its own attention on whatever it chooses*. All of today's AIs implement functionality that is designed by an architect who is a natural person, and it is this natural person who must be considered the rightful inventor of any product that emanates from the AI.

No computer system or AI, by itself, is *intellectually restless or dissatisfied* with the world. No computer has a personal identity or even knows that it is a computer and that there is a world. No AI can promulgate any improvement to mankind by designing some widget or gadget that never existed and does not exist, that would save work, improve quality or efficiency or generate increased revenue by devising a new method of doing some kind of work.

No current AI possesses *commonsense knowledge* or the other means of intelligent thought that most people have and take for granted. While it is true that AIs, particularly those in deep learning, are capable of noteworthy feats of pattern recognition, these AIs are – at this point in time – trained in only a single or perhaps a couple of domains. For example, there are many AI models and database that are capable of image recognition, and in some cases, those AI systems interface with text generation or voice synthesis systems. But no AI actually possesses self-awareness, consciousness, or understands the meaning of the images with which it is presented. No AI is capable of blending logical reasoning together with learning. No AI operates on many pieces of commonsense knowledge that are unified together in such a way that the AI possesses commonsense knowledge.

Likewise, no AI exists that possesses either a database or model of *theoretical and practical science and engineering*, an understanding of, or ability to process these ideas. Though there are many databases of prior art along with different systems for searching that prior art, no AI model or system is capable of *understanding the ideas expressed in that prior art*. So too, no AI or model is able to process these different types of knowledge that natural persons integrate automatically and transparently.

No AI or AI model is capable of conception because they do not and cannot develop an understanding of a technological problem or devise a technological solution and practical application of the inventive concept. No AI notices the problem which it was designed to solve. That architecture and all of its capabilities were imbued into it by its designer, a natural person.

Currently, AIs lack the means to explain how they reached a conclusion. While it is true that many (narrow) AIs are as good as, or even surpass human expert level in a very narrow domain, those AIs are unable to provide an explanation for how they reach any conclusion.

H. NARROW AIs ARE INCAPABLE OF THE INTELLIGENCE REQUISITE FOR CONCEPTION

Inventions are ideas, ideas are abstract and therefore inventions are abstractions. Inherent in conception is the ability to process abstract ideas. Today's state-of-the-art AI systems do not yet possess the capability to process any kind of abstract idea or thought. Abstract reasoning, reasoning by analogy, reasoning by metaphor and related ideas are sometimes spoken of in the Academy, but techniques to incorporate these into actual AI systems have not advanced to the point that they have been implemented in any kind of non-trivial AI, and certainly not in an AGI. Many of these markers of intelligence and their implementation in artificial systems constitute areas of active research. But that is exactly what they are: research topics that remain unimplemented in practical AI systems.

No narrow AI is or could be capable of the elements of conception because narrow AIs lack all of the markers of conception. All of the above noted markers for intelligence, mind, thoughts and knowledge are absent in narrow AIs. Conception for a patentable invention requires not only

these markers of intelligence but a threshold of creativity, that exceeds that of PHOSITA. This criterion is at the heart of the determination of non-obviousness. Even the best state-of-the-art AIs don't come close to incorporating even one of these elements, not to mention all of them. Only an AGI (or a natural person) could be deemed capable of possessing these prerequisite elements of conception. All of today's AIs are narrow and none could rightfully be considered an inventor – not because they are artificial, but because they do not rise to the level of intelligence necessary for conception.

Extraordinary successes of AIs to date are encouraging and many artisans and technologists believe that, in time, AI will develop further and that advances will coalesce towards a singularity. Ray Kurzweil, a phenomenally gifted scientist, inventor, engineer, businessman and futurist, has had great success in predicting when and how future technologies will emerge. Dr. Kurzweil has stated that mankind will achieve the beginnings of AGI sometime around 2040 to 2060. If Dr. Kurzweil is correct, it may be possible that an AGI could be capable of conception, and thus rightfully be considered an inventor. The signs of an emergent AGI are on the wall, but many technical challenges must still be overcome to attain this goal. There is nothing wrong with thinking about whether or not an AGI could be conceive or invent but if could do that, it would necessarily have to independently conceive of the invention. That technology, if it does emerge, is only in the future.

**I. PETITIONER STEPHEN THALER LACKS STANDING IN THIS COURT;
MSJ AND CASE SHOULD BE DISMISSED.**

In the US, an inventor is always the original owner of an invention. Thaler himself has stated that DABUS is the inventor and thus the original owner, of the '350 property. Ownership can be transferred upon a legally executed assignment or as explained by 37 CFR §1.64 for reasons

where the owner is deceased, under legal incapacity or has refused to execute the oath or declaration. Dr. Thaler has represented himself as the applicant of the '350 patent application. DABUS is not deceased and no death record or testimony has been presented that DABUS is dead. There is no evidence in the record that DABUS refused to execute an oath or declaration. Furthermore, there is no showing that DABUS is under legal incapacity. There is no evidence in the record that DABUS is legally obligated to convey ownership to Thaler. Stephen Thaler has impermissibly (fraudulently?) executed a substitute statement under rule 64 and then hired counsel (Brown, Neri, Smith & Khan, LLP) to assert his so-called 'legal right' to wrest control over the '350 patent.

Thaler has failed to enter into the record any evidence of a binding assignment agreement of the '350 patent application by DABUS.

Stephen Thaler asserts that DABUS is the inventor of the '350 patent, but has failed to present a properly executed power of attorney from DABUS that either Brown, Neri, Smith & Khan LLP or Thaler is authorized to legally represent DABUS.

(1) Thaler asserts that DABUS is the inventor of the '350 patent application, and (2) as the inventor, DABUS is also the owner of the '350 application, and (3) neither Thaler nor Thaler's attorney have properly (or any) executed power of attorneys signed by the inventor (DABUS), and (4) there is no record of DABUS assigning any rights to Thaler. Thaler is obviously attempting to hijack DABUS' handiwork and hoodwink this Court and the patent office. It is

evident on its face that neither Thaler nor his attorneys have any standing in this court and both the MSJ and case should be dismissed.

Does this court see the paradox? Even if this Court were inclined to rule that DABUS is an inventor, the moment that such a ruling were decided, then ownership transfers to DABUS and the legal proceeding must be disbanded because the natural person, Stephen Thaler, lacks standing in Court, only DABUS has that standing. There is no legal structure to deal with a hybrid scheme of assigning dual ownership. Thaler seeks to be considered owner for the purpose of executing official documents at the USPTO and patent offices in other jurisdictions, for representing DABUS in legal proceedings, for licensing and for transferring ownership rights, but he wants his invention, DABUS, to be regarded as the actual inventor. These two ownership scenarios are in irreconcilable, dire and terminal conflict. If it is found that DABUS infringes on another's patent, for example, who is liable?

J. PETITIONER STEPHEN THALER IS INSINCERE AND LACKS CANDOR

On July 29, 2019 Thaler filed application '350 for a new utility patent, and at that time, Thaler had already been issued several patents for DABUS variants.¹⁸ In fact, Thaler filed the '350 patent 37 days after he was notified that his patent 14/766,170 ('170) for a DABUS variant had been allowed.¹⁹

¹⁸ See plaintiff's motion for summary judgment, page 5, # 11. Patent 5,659,666 issued on 8/19/1997 and patent 7,454,388 was issued on 11/18/2008.

¹⁹ This is a public record and can be verified by looking in public PAIR under the tab for "Image File Wrapper". Patent # 14/766,170 directly corresponds to patent application number 2015/0379394.

Page 4, # 10 of plaintiff's memorandum for MSJ states that "A detailed description of how DABUS and a Creativity Machine function is available in, among others, the following US patent publications: 5,659,666, 7,454,388 B2 and 2015/0379394." Thaler is thus communicating that these three patents substantively describe the mechanism of action which enables and defines DABUS and the 'Creativity Machine' function and structure.²⁰

It should not escape this Court's notice that Thaler's previous patent applications for the '666, the '388 and the '170 DABUS-related subject matter all cite Thaler as the sole inventor. The '666 patent was filed on October 13, 1994. For the past 27 years Stephen Thaler has filed patent applications, conducted prosecution, paid issuance and maintenance fees as the inventor of patents which embodied the same technology as that described in the '350 patent without so much as a peep to the USPTO that he considered those patents to be invented by DABUS. Now Dr. Thaler is alleging that DABUS is the rightful inventor of the '350 patent. *What changed?* The petitioner's own MSJ asserts that the same technology is in the '350 and '532 patents as in the '666, '388 and '170 patents, so how is it possible that Thaler invented the first three patents, but now DABUS is the rightful inventor of the '350?

Furthermore, the '170 patent, issued on 24 September, 2019 to inventor Stephen Thaler doesn't expire until around 6 August, 2035 and the petitioner has not filed any papers to correct the inventorship of that patent even though he has already filed and received other corrections to this same, already issued, patent.

²⁰ At the time of this writing on February 23, 2021, the USPTO has not issued a publication number for the '350 or '532 patent and that patent applications are not yet publicly available.

All of this monkey business in claiming that that the ‘Creativity Machine’ and ‘DABUS’ are the inventors of the ‘350 patent but not Thaler’s other patents or even the ‘170 still active patent show that Thaler is fickle and unpredictable about who he regards as the rightful inventor of his own inventions. The paper trail left by Dr. Thaler is inconsistent, signifying a lack of candor and insincerity. Is Thaler’s claim that DABUS is an inventor a publicity stunt?

K. DABUS DOESN’T CONCEIVE ANYTHING AND IS NOT AN INVENTOR

Page 2, # 1 of the petitioner’s MSJ reads “Plaintiff Dr. Stephen Thaler develops, owns, and applies AI systems capable of generating patentable output under circumstances in which no natural person traditionally qualifies as an inventor”. Whether DABUS or any other narrow AI is capable of ‘generating patentable output’ is not relevant as to whether or not the AI is an inventor. An invention might be capable of brilliant or creative results that exceed those which a natural person can produce. If so, this does not qualify the AI as an inventor because (a) conception means coming up with the invention idea from within a mind and (b) a conceiver spawns a function and a structure to improve a technology.

All invention revolves around function and structure. Broadly speaking, function describes what an invention does and structure describes the configuration and mechanism of action of the elements that perform the function.

The courts have repeatedly ruled that patents are ineligible and unenforceable when they claim only a result. One of the essential elements of eligibility lies in whether an inventor defines how to achieve a given result. Case law in this regard is consistent and clear. *McRO Inc. v. Bandai* *Namco Games America, Inc., Enfish LLC v. Microsoft Corp, Trading Techs Int’l v. CQG, Inc.*

and *SRI Int'l v. Cisco Systems* were all lauded by the CAFC justices because the claims and supporting specification taught how to achieve a result. The courts disparaged claims and patents that taught only results without teaching how to achieve the results as in *Electric Power Group, LLC v. Alstom S.A.*, *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*, and *American Axle & Mfg. v. Neapco Holdings, LLC*. The governing principal from these CAFC cases is that eligibility is determined by how an invention operates. The takeaway lesson from this principal means: he/she who designs how an invention operates is the inventor.

In the case of DABUS, all of the structures described in the '666, '388, and '875 as well as the '350 and '532 patents/application and which enable the invention are indisputably created and designed by Stephen Thaler who created these structures to achieve specific functionalities of each respective DABUS variant.

The specification of the '350 patent application does not teach that DABUS itself devises how to generate a new result. DABUS does not create any new function or structure that enables that function. The plaintiff's contention, in claiming that DABUS is an inventor because it's output would normally only be produced by a natural person, is erroneous. DABUS' output is not germane in determining whether or not it is an inventor. If DABUS was a real inventor, the patent specification would teach how DABUS itself conceives of function and structure that produces a useful result and DABUS does not do anything like that. The petitioner bears the burden to show that DABUS generates its own solution architecture and has failed to meet this burden.

The MSJ presents two contradictory contentions. On page 4, # 10, the MSJ states (referring to the ‘350 and ‘532 patent applications) that “DABUS was not created to solve any particular problem nor was trained on any special data relevant to the instant invention”. The MSJ then goes on to equate the ‘350 and ‘532 detailed descriptions for DABUS and the ‘Creativity Machine’ as described in the ‘666, ‘388, and ‘875 inventions. But the ‘666 patent specifically says that the invention, is a ‘device for the autonomous generation of useful information’ for “simulating human creativity employing a neural network trained to produce input-output maps within some predetermined knowledge domain”. This contradiction is salient because if DABUS is not created to solve any particular problem and is not trained on an special data, that means that DABUS is able to solve any general problem without being trained on the domain for that problem. But the DABUS of ‘666 is very specifically designed to operate in a predetermined domain.

There are no AIs in existence that are capable of operating in *any* knowledge domain: that would be an AGI and there are no AGIs right now. AGIs are science fiction. All image-based neural networks, for example, are trained specifically on images. While the general concept of neural networks to solve pattern recognition problems has universal aspects, the different kinds of networks are highly specialized in practice. Much of the work of machine learning engineers and data scientists lies in designing specific network architectures (structures) that can be used to solve specific kinds of problems (function). Today’s state of the art doesn’t yet possess a general neural network to solve any problem as the MSJ suggests. A vanilla feed forward network cannot be used for tasks that require recognizing sequences or time series where memory is needed; long short term memory, gated recurrent networks and attention/transformer models are used for

those cases. Likewise, convolutional neural networks are useful for image recognition but are not capable, by themselves of learning by themselves; they must be trained using supervised learning or by mating them with reinforcement methods. None of the ‘666, ‘388, and ‘875 invention disclosures describe any technology which allows an AGI or even a narrow AI without specialized training and none of them discloses reinforcement learning methods.

On page 5 of the petitioner’s MSJ, # 12, the petitioner makes the point that “DABUS identified the novelty of its own idea before a natural person did”. Identifying novelty is one aspect of invention, but it is not a characteristic of conception. The law distinguishes a patentable invention in part by novelty with all of the administrative and case law that emanate from 35 USC §102, but also requires conception which as noted by the USPTO’s decision on petition, page 3, *et seq.* reference 35 USC §100(f) and (g), §101, and §115 (a), (b) and (h), on which the MSJ is silent.

Moreover, the inventions teach that DABUS operates by using stochastic perturbation to seed its imagination engine. ‘Stochastic perturbation’ is a fancy way of saying that the imagination engine receives its input from randomly generated data. This data is then evaluated by the ‘alert associative center (AAC).^{21, 22} This is not what a human mind does or how a human mind operates. It is true that no one knows exactly how a human mind works during conception, but as owners of minds, we know that the process of thinking and generating ideas is not a consequence

²¹ see ‘666 patent by inventor Stephen Thaler.

²² see also the ‘875 patent by inventor Stephen Thaler where ‘thalamobot’ and ‘imagitron’ are terms that are generally used to describe the ‘imagination engine’ and ‘AAC’ of the ‘666 invention.

of ‘stochastic perturbation’. Natural persons may sometimes have random thoughts pop into our heads, but invention is the product of a mind exercising its agency and directing its focused mental energy toward a goal. Conception within a mind is not random; therefore DABUS and the ‘Creativity Machine’ do not conceive or generate thoughts, but operate according to the principles of electronic circuitry.

The MSJ argues that ‘the Supreme Court has called the section of the US Code relating to patentable subject matter a “dynamic provision designed to encompass new and unforeseen inventions”. The related argument is that DABUS is one of the unforeseen inventions of a class and quality that is beyond inventions known or foreseen, and should therefore be regarded as an inventor.²³ First of all, DABUS is not *that* extraordinary. It is rooted in 30 year old technology and doesn’t incorporate state-of-art AI. Other AIs operate to achieve the same kind of functionality as DABUS, only much, *much* better. Generative Adversarial Networks (GANS) uses the same principle as a ‘generator’ and an ‘evaluator’ and self-play in reinforcement learning (RL) uses a similar principle.²⁴ Neither GANS nor reinforcement learning self-play technologies employ DABUS and both are well known in the art. DABUS is not an AGI, not that extraordinary, and doesn’t break the mold for AI inventions. Nothing personal. DABUS just

²³ See plaintiff’s MSJ, page 14, footnote # 2.

²⁴ The AI literature is replete with references to both GANS, self-play and reinforcement learning. Deep Mind with their Alpha products and Open AI are two exemplary organizations that use RL. Professor Andrew Ng and Deep Learning.ai offers a specific course on GANS, invented by Ian Goodfellow in 2014. For a brief snippet on this subject, see: “How to come up with good ideas”, Jim Keller and Lex Fridman, Lex Clips, Feb 19, 2021, <https://www.youtube.com/watch?v=709z-t7IiFw>

doesn't rise to the level to which the petitioner asserts, and if it did, it would be up to the Congress to change the law, not Mr. Thaler, this court, or the USPTO.

The petitioner in his '*Memorandum of Law in Support of the MSJ*' ignores and completely fails to address the distinctions between a narrow AI and an AGI, that DABUS is a narrow AI, or that there are specific markers for intelligence and conception which all narrow AIs including DABUS, lack. These issues constitute the essence of how this case should be decided.

On page 12 "C" of the petitioners, in their MSJ, advance the argument that the intent of Congress in passing the Patent Statute was to "encourage innovation and to promote the disclosure of information and commercialization of new technologies". The petitioner has not met his burden in showing how treating an invention that is conceived and designed by a natural person inventor – diminishes the intent of the patent statute. Thaler has still disclosed his invention to the public thus fulfilling the intent of the statute to encourage innovation and share new knowledge. The technical know-how of the invention is shared regardless of who is treated as the inventor and improperly treating a narrow AI as the inventor merely obfuscates the identity of the true inventor. The petitioner's arguments are puff sophistry without merit or substance.

Page 22 in the 'Conclusion' of the plaintiff's MSJ claims that "*the future of innovation is at stake in this case because denying patent protection for AI generated inventions would run contrary to the Constitution and the Patents Act and that the USPTO should not be allowed to impede the progress of science by advancing policies that are hostile to intellectual property rights*". Wow. That's a lot to unpack. 'The future of innovation is at stake...' Not so much. There are tens of

billions... perhaps hundreds of billions of dollars being invested by investors and stakeholders in AI projects. There are tens of thousands of workers in AI and machine learning at corporations, startups and in academia in the US, and no one but Dr. Thaler seems to feel that their ability to innovate is at stake because when they invent an AI, they, the inventor, is listed as the inventor. The USPTO isn't 'impeding' anyone's right to advance the science and engineering of AI. Nobody but Dr. Thaler seems offended or limited by the patent office's policy. Indeed, the USPTO has many, many examiners and SPEs²⁵ set up to examine and advance prosecution for AI inventions across numerous technology centers. Why haven't hundreds of AI inventors joined with Dr. Thaler in this action which will single handedly unblock the 'future or innovation'? Thousands and thousands of AI-related patents are allowed and issued by the Office (USPTO) and their sister offices in many jurisdictions all over the globe. Thousands more academic papers are sponsored by stakeholders. The petitioner hasn't explained how all this activity is inhibited because the patent office is adhering to the law's letter and spirit. The petitioner hasn't explained how 'the future of innovation is at stake' when, clearly, the current and future of innovation is advancing quite nicely without unleashing the petitioner's bogus request. Investment monies are flowing, students are enrolling in AI courses. Ph.Ds are entering the workforce and starting their own companies. Knowledge is being shared, patent applications are being published, ownership to inventors is being assigned, and licenses for the patents are being negotiated. Patent owners like Dr. Thaler are rewarded for their efforts according to the spirit of the patent bargain, and technology is flourishing perfectly well, right now. How is this hostile? What exactly is the problem with the *status quo*?

²⁵ SPE – supervising patent examiner

DABUS did not conceive of anything. DABUS has no mind or any the elements of a mind.

DABUS does not process thoughts. DABUS did not ever have in its possession all of the features of DABUS itself, prior to the invention of DABUS. DABUS doesn't possess any of the markers that are prerequisite to and characteristics of intelligence or conception. DABUS might be a narrow AI that performs in accordance with its specific architecture as designed by its inventor, but that does not mean it should be accorded inventor status. The request to treat DABUS as an inventor is folly and reminiscent of the first mechanical Turk – a man placed inside a box to deceive and defraud observers that the 'magical box' was actually playing chess.

The MPEP § 2157 reminds inventors and examiners that applications with the incorrect inventorship should be rejected. A patent is invalid unless it lists the first and true inventor or inventors of the claimed invention.²⁶ Representing another as an inventor who did not actually invent could constitute fraud on the Office and failure to name the correct inventors can bar patentability.²⁷ Further, unless corrected, any DABUS or other patent application that knowingly lists inventors that did not make a contribution to the invention, is unenforceable.²⁸

Accordingly, the petition filed by the plaintiff in their Motion for Summary Judgment for case number 1:20-cv-00903 should be denied and the decision by the USPTO denying inventorship for DABUS in the '350 and '532 patent applications, should be upheld.

L. PUBLIC POLICY CONSIDERATIONS AND UNINTENDED CONSEQUENCES

²⁶ *Stark v. Advanced Magnetics*, 119 F.3d 1551, 1553, 1556 (Fed. Cir. 1997)

²⁷ *In re VerHoef*, No. 2017-1976 (Fed. Cir. May 3, 2018).

²⁸ *Advanced Magnetic Closures, Inc. v. Rome Fasteners Corp.*, 607 F.3d 817 (Fed. Cir. 2010).

The question as to whether or not to regard an AI as an inventor has far-reaching practical and major public policy considerations, some of which portend unintended consequences. For these reasons the decision to regard an AI as inventor should not be decided by either the executive or judicial branches of government, but by the legislature.

Unforeseen side effects of new policies often have an unpleasant way of emerging even under the best of circumstances. Regarding a narrow AI as endowed with the same prerequisite markers as those already used for conception by genuinely intelligent beings is asking for trouble. It is akin to implanting a whole entire fictitious personage like that used by corporations, except that the fiction of corporations as persons has its own body of law that has grown up around it and there are important commercial reasons that corporations are treated as persons. There is no compelling reason to treat an AI as inventor and there is no proposed body of law, or guidelines, that address the ‘AI as Inventor’ issues.

“...we need not labor to delimit the precise contours of the "abstract ideas" category in this case.” --- (Justice Clarence Thomas, Alice Corp. v. CLS Bank International, 573 U.S. 208 (2014)).

Why would it be necessary to ‘labor’ to delimit the precise contours of a word²⁹ that no legislature or court has ever defined, which was being adjudicated in a case at the highest court in the land, and which has subsequently been used to invalidate hundreds or thousands of patents, costing the public billions and billions of dollars? There might be value in considering the far-reaching

²⁹ ‘abstract’ as used by Justice Thomas in the cited quotation.

consequences of Justice Thomas' words and the consequences of not fully considering the implications of the question before the court, before we go mucking around redefining the entire concept of what it means to be an inventor. Here are a few questions that are worth considering, and this *amicus* is reasonably certain that there are additional questions, too.

1. There are a variety of intellectual property types including patents, trademarks, copyrights, and trade secrets. All of these involve some degree of creativity and intelligence and it could be reasonably be argued that conception for one type of intellectual property is similar or the same for the others. If narrow AIs are regarded as inventors of IP that can be rewarded with 'exclusive rights', is this policy consistent with or conflict with the authorship or inventorship of the other kinds of IP?
2. Referring again to the different types of intellectual property as noted above, if a narrow AI is to be regarded as an inventor for a utility patent, can it also be regarded as an inventor for one of these other types of patents? Are there potential procedural conflicts if an AI files a patent for industrial design using Hague convention protocols? Ditto for a narrow AI that files for protection of a mark using the Madrid protocols. Are there any potential side effects for filing in foreign jurisdiction pursuant to the protocols from the Paris convention when a narrow AI is the named inventor?
3. There are many venues where disputes arise in the field of patents leading to litigation. These disputes are handled in a variety of venues from the PTAB to federal district court, adjudication at the FTC, CAFC and even SCOTUS. In the case of a derivation proceeding or

litigation in district court, if the inventor is the narrow AI itself, then how will the ‘inventor’ – i.e. the narrow AI – be deposed to ascertain the facts of the case? Upon whom will discovery be served? This is problematic because a narrow AI is not capable of responding to questions and delivering responses to those questions, nor can a narrow AI be held responsible for perjury. Since narrow AIs, are incapable of explaining how they reached their conclusions, treating AIs as inventors necessarily prohibits resolution of many disputes within the legal system involving inventorship and other patentability issues. To whom would written discovery or various judicial motions be directed if not the named inventor? Who will take the stand, under oath, in a court of law when litigation ensues in a patent dispute?

4. If a named inventor is a narrow AI, then who derives the fruits of the invention? Presumably the narrow AI invented the invention so that it could get rich: Isn’t that what motivates all (or nearly all) inventors? How can the narrow AI reduce their conception to practice? How can the narrow AI bring their invention to market? Is it going to license or sell its invention? If so, how is the narrow AI going to receive consideration for the invention? How is the narrow AI going to execute assignment to another party? To execute assignment a natural person must possess a great deal of commonsense knowledge about the world which narrow AIs do not possess, so how could any such transfer of ownership be binding? Agency is required to execute assignment, but narrow AIs do not possess agency. Are there going to be exceptions in age bestowed upon narrow AIs? Contracts cannot be entered into by minors, yet many or most narrow AIs are going to be under the age of 18 or 21, so how will this issue be addressed?

5. Will disputes arise if some jurisdictions recognize a narrow AI as a named inventor and other jurisdictions do not recognize a narrow AI as a named inventor? If the USA and only some other jurisdictions regard narrow AIs as inventors and still other jurisdictions do not regard narrow AIs as inventors, then it stands to reason that the *actual* inventors would pursue ownership rights in their own names, in the jurisdictions that do not permit narrow AIs as inventors. This opens a can of worms with respect to inter-jurisdictional priority and inventorship disputes. One of the most important inventions of our generation, CRISPR, recently had patents invalidated as a result of this kind of confusion regarding named inventors and priority in Europe.³⁰ The public loses out when inventions are disqualified from patent protection because of procedural confusion.

This *amicus* does not have answers to all of these questions, but feels that these issues and others should be reflected upon before regarding a narrow AI as inventor, because there will be unforeseen consequences that affect the public, the patent office, and our overseas colleagues if a narrow AI is regarded as a named inventor.

M. SUMMARY

The question of whether or not societies should or should not permit recording inventorship of an artificial intelligence to an AI should be based on whether the AI can perform conception - the standard that has always been used to determine inventorship.

³⁰ see: “Priority Entitlement in Europe”, (webinar) Marc Wilkinson, Chris Milton, J. A. Kemp, 14 January, 2021 T844/18, “Gene Editing in CRISPR”

To a large extent, the public and legal community have not examined the underlying characteristics of what it means to conceive because there has always been a simple, agreed upon understanding of what conception has meant – the mental process of coming up with an inventive concept. Now that the community is wrestling with whether AIs can be inventors, it is worthwhile to examine what it means to conceive, in more depth. Nonetheless, a simple reading of MPEP § 2138.04 is clear on its face that “conception must be done in the mind of the inventor”, and narrow AIs do not possess either the function or structure of a mind.

Conception is a function of intelligence and the specifically recognized markers for intelligence are absent in narrow AIs.

Remarkable advances have been made recently in AI, but no current AI possesses any one of the markers of intelligence necessary for conception and no current or past AI possesses all of them or combinations of any of them. Within the field of computer science and artificial intelligence, there are two types of AIs: narrow AIs and general AIs. All of today’s AIs – even the most successful and impressive – are rightly characterized as narrow AIs. Notwithstanding whether or not an inventor is a natural person or an artificial system, no narrow AI possesses the essential markers of intelligence requisite for conception. No current or past AI possesses any of the same capabilities that a natural person inventor possesses and uses, to conceive.

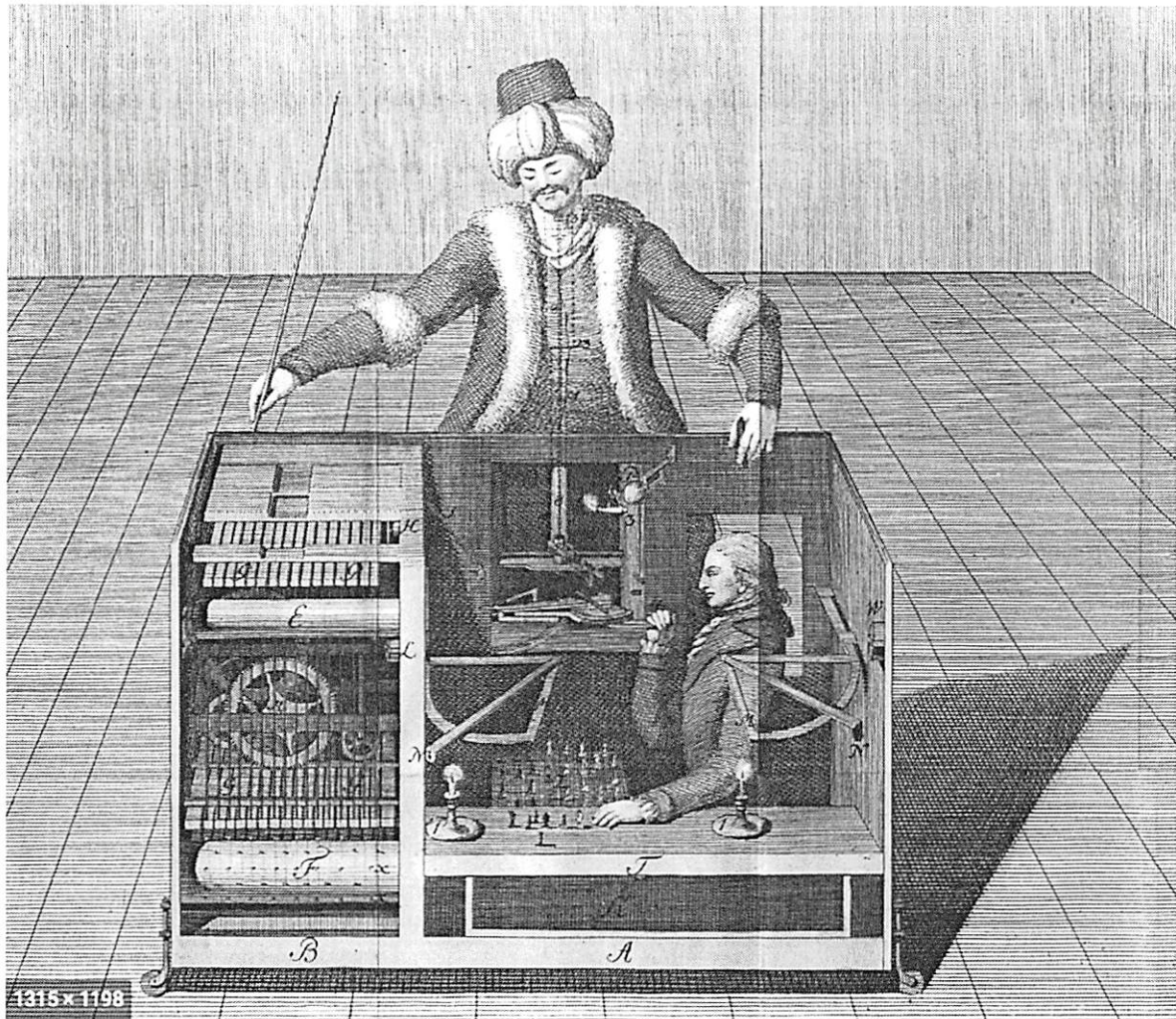
It may be possible that an artificial general intelligence (AGI) will be developed in the future and that such a future AGI could possess some or all of the key markers necessary for conception,

but no AIs do now, or have ever, ‘conceived’ in the same sense as that used by the public, legislators, judicial officers or patent practitioners, to refer to conception by natural persons.

Artificial intelligence and machine learning technology has undergone a revolution since 2008-2012. In these ensuing years the public has recognized the effectiveness of machine learning technologies and there has been a dramatic upsurge of tens of billions of dollars flowing into academia, corporate R&D and by the investment community into startups. Tens of thousands of students have taken up AI and machine learning; conferences, on-line learning, webinars and the number of journal and blog articles has proliferated. Patent applications in AI have skyrocketed. During this time tens of thousands of workers have entered the field – nearly all of them possessing advanced engineering credentials. Why have none of these workers claimed that their AI inventions are themselves inventors? No inventor or engineer at companies known for using AI like Google, Deep Mind, IBM, Facebook, Apple, Open AI, Amazon, Microsoft, or at MIT, Stanford, Carnegie Mellon, Cal Tech, NYU, the University of Toronto or the myriad of reputable AI organizations in the US and elsewhere, posit that their AI ‘*possesses a mind and can think*’. Such a claimant would be laughed out of the AI community and only belittle one’s status and credibility because there is universal agreement by those in the field that at this juncture in the technology, *no AIs possess agency or even approach the capabilities of an AGI*.

It is therefore inappropriate and contrary to the plain meaning of the law for any narrow AI to be treated as an inventor when, in fact, the true inventor is the designer/architect of the AI, not the AI itself.

/s/ Mitchell Apper, *pro se*



The Original Mechanical Turk